

DEPARTMENT OF ENVIRONMENTAL QUALITY
Environmental Assessment

Permitting and Compliance Division
Water Protection Bureau

Name of Project: Beaverhead Mine

Type of Project: Reclaimed Open Pit and Underground Talc Mine.

Location of Project: East ½ of Section 14, Township 7 South, Range 6 West, Madison County Montana.

City/Town: 25 Miles Southwest of Alder

County: Madison

Description of Project: The proposed action is issuance and renewal of MPDES permit number MT0027821 to Rio Tinto Minerals. Currently, the facility is undergoing post-closure reclamation stabilization. Environmental impacts due to the Beaverhead Mine were analyzed by the Department during permitting of mine (Preliminary Environmental Review (PER) for the Proposed Granting of a Hard Rock Operating Permit to Cyprus Industrial Minerals Co., Beaverhead Mine Madison County, Department of State Lands 1976), subsequent amendment PERs for permit modifications (1981-1986), and the final reclamation plan was approved by the Department on October 5, 1999 (Department Correspondence dated October 5, 1999; RE: Approval of Beaverhead Mine Updated Reclamation Plan). This analysis is tiered to those analyses and is specifically concerned with potential water quality impacts from issuance and renewal of the MPDES permit.

Agency Action and Applicable Regulations: The proposed action is renewal of individual Montana Pollutant Discharge Elimination System (MPDES) permit authorizing discharge of mine dewatering wastewater and other mine drainage from disturbed areas through a single outfall, Outfall 001. The proposed MPDES permit, number MT0027821, has been drafted pursuant to the Montana Water Quality Act, Title 75, Chapter 5, Montana Code Annotated; the Federal Water Pollution Control Act ("Clean Water Act") 33 U.S.C. §1251 *et seq.*; and, Administrative Rules of Montana 17.30.501 *et seq.*, 17.30.601 *et seq.*, 17.30.701 *et seq.*, 17.30.1201 *et. seq.* and 17.30.1301 *et seq.*

Summary of Issues: This analysis is tiered to environmental analysis conducted for previously operational approvals for all resources, except for potential water quality impacts from issuance and renewal of the MPDES permit# MT0027821. Reasonable potential analysis conducted for permit renewal indicated the wastewater discharge may result in an excursion from water quality standards for suspended solid, turbidity and pH. Permit limits have been developed and implemented in the discharge permit to prevent excursion from water quality standards. Monitoring is required to ensure compliance.

Affected Environment & Impacts of the Proposed Project:

Y = Impacts may occur.

N = Not present or No Impact will likely occur.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	[N] Reclamation has taken place, no impact will likely occur.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[Y] MPDES permit development reasonable potential analysis indicated the proposed wastewater discharge may result in an excursion from water quality standards for suspended solid, turbidity and pH. Permit limits have been developed and implemented in the permit to prevent excursion from water quality standards. Monitoring is required to ensure compliance.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[N] Active mining operations have ceased, no impact will likely occur.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[N] No vegetative cover impacts will likely occur due to renewal of the MPDES permit and discharge of wastewater as authorized by the permit.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] No impacts will likely occur due to renewal of the MPDES permit and discharge of wastewater as authorized by the permit.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	[N] No impacts will likely occur due to renewal of the MPDES permit and discharge of wastewater as authorized by the permit. Execution and stabilization of the reclamation will likely improve and increase available habitat.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] No impacts will likely occur due to renewal of the MPDES permit and discharge of wastewater as authorized by the permit.
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[N] No impacts will likely occur due to renewal of the MPDES permit and discharge of wastewater as authorized by the permit. Project is not known to be visible from populated or scenic areas.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? Will new or upgraded powerline or other energy source be needed?	[N] No impacts will likely occur due to renewal of the MPDES permit and discharge of wastewater as authorized by the permit. The water management and treatment system is gravity driven and requires no power and little maintenance.
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[Y] An open pit talc mining operation exists on the other side of the ridge-line directly to the northwest. Water management practices at that facility may influence discharge quantity at the Beaverhead facility. No impacts will likely occur due to renewal of the MPDES permit and discharge of wastewater as authorized by the permit.

IMPACTS ON THE HUMAN ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] No impacts will likely occur due to renewal of the MPDES permit and discharge of wastewater as authorized by the permit. Effluent limits in the permit have been developed to maintain the receiving water at or better than drinking water quality.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N] No impacts will likely occur due to renewal of the MPDES permit and discharge of wastewater as authorized by the permit. Reclamation stabilization and monitoring does not directly influence these activities.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] No impacts will likely occur due to renewal of the MPDES permit and discharge of wastewater as authorized by the permit. The same number of employees will be required to continue monitoring required by the permit as previously.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N] No impacts will likely occur due to renewal of the MPDES permit and discharge of wastewater as authorized by the permit. No active mineral extraction is authorized by the MPDES permit resulting in the gain or loss of taxable revenue or royalties.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] No impacts will likely occur due to renewal of the MPDES permit and discharge of wastewater as authorized by the permit. The same frequency of monitoring is required in the permit, thus traffic levels near the mine and other government services will not change as a result of MPDES permit renewal.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] None have been identified during the course of MPDES permit analysis.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N] No impacts will likely occur due to renewal of the MPDES permit and discharge of wastewater as authorized by the permit. The MPDES permit does not result in alteration of existing roads or access points through the tract.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] No impacts will likely occur due to renewal of the MPDES permit and discharge of wastewater as authorized by the permit. No additional housing or population will be required to operate the water management system or conduct and prepare monitoring reports.
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] No impacts will likely occur due to renewal of the MPDES permit and discharge of wastewater as authorized by the permit. Wastewater discharge is not known to have a direct bearing on social structures and mores in the area.
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N] No impacts will likely occur due to renewal of the MPDES permit and discharge of wastewater as authorized by the permit. No unique qualities have been identified.
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N] None have been identified during MPDES permit analysis.

IMPACTS ON THE HUMAN ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
22(a). PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[N]
22(b). PRIVATE PROPERTY IMPACTS: Is the agency proposing to deny the application or condition the approval in a way that restricts the use of the regulated person's private property? If not, no further analysis is required.	[NA]
22(c). PRIVATE PROPERTY IMPACTS: If the answer to 21(b) is affirmative, does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives. The agency must disclose the potential costs of identified restrictions.	[NA]

23. Description of and Impacts of other Alternatives Considered:

A. No Action: Failure to reissue, and dissolution of the MPDES permit will remove the compliance regulatory mechanism protecting water quality within the affected drainages. Water quality impacts may occur due to the lack of a compliance mechanism.

B. Approval with modification: No modification have been proposed or analyzed. Compliance with the permit conditions as ensured by monitoring required in the permit result in nonsignificant impacts to water quality.

24. Summary of Magnitude and Significance of Potential Impacts: This EA finds no significant impacts or likely to occur due to issuance of the proposed MPDES permit.

25. Cumulative Effects: Other similar projects exist in the immediate area. However, any existing cumulative impacts due to operation of both facilities may begin to wane as reclamation stabilizes and the dewatered water table recovers at the Beaverhead facility. Other than the two existing facilities no known proposals for new facilities causing cumulative impacts exist at this time.

26. Preferred Action Alternative and Rationale: Issue renewed MPDES permit so compliance with water quality standards is ensured via monitoring and reporting requirements in the permit.

Recommendation for Further Environmental Analysis:

☐ EIS ☐ More Detailed EA ☒ No Further Analysis

Rationale for Recommendation:

27. Public Involvement: This permit and EA are being issued for public comment on September 15, 2006. The comment period extends until October 16, 2006.
28. Persons and agencies consulted in the preparation of this analysis: DEQ Environmental Management Bureau Hard Rock Mining Section and DEQ Air Resources Management Bureau

EA Checklist Prepared By:

Paul Skubinna
(Name)

September 14, 2006
Date

Approved By:

(Print: name & title)

Signature

Date